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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,982

12/08/2003

Steve Roman Michel Van Den Berghe

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04/05/2006

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EXAMINER

LIN, SUN J

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,982

Applicant(s)

VAN DEN BERGHE ET AL.

Examiner

Sun J. Lin

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/08/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 and 30 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to Amendments & Remarks filed on 02/08/2006 regarding patent application S/N 10/728,982. Claims 9 and 10 have been cancelled. Claims 1 – 8 and 11 – 16 remain pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- (1). Determining the scope and contents of the prior art.
- (2). Ascertaining the differences between the prior art and the claims at issue.
- (3). Resolving the level of ordinary skill in the pertinent art.
- (4). Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1 – 5, 8, 11 – 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,937,823 to Ballard et al. in view of U.S. Patent No. 5,592,628 to Ueno et al.

4. As to Claim 1, Ballard et al. show and teach the following subject matter:

- Method and apparatus for diagnosing problems in data communication networks – [title]; Notice that (1) the apparatus is a computer program product (2) digital traffic signals (e.g., digital packet data) are flowing in a data communication network (i.e., integrated-circuit-environment);
- The apparatus comprising at least one generic module LCSM in service system 3 – [Fig. 1; col. 10, line 25 – 50];
- The apparatus comprising at least one specific module LCCM, which provides a specific (transmission) protocol to the generic module LCSM for diagnosing a

specific target communication system – [Fig. 1; col. 10, line 25 – 50]; Notice that (1) LCCM provides a transmission protocol to encode packet data of the traffic signal, which is done in the generic module LCSM (2) the transmission protocol is specific to the target communication system under test – [Fig. 1].

Ballard et al. show and teach a generic module and a specific module in a service system (i.e., test equipment – computer program product) for use in diagnosing a target data communication system/network (i.e., integrated-circuit system) in [Response A] given above; they do not teach an integrated-circuit-environment (target data communication system/network under test) which comprises a processor system having capabilities of receiving/transmitting test traffic signals from/to the service system (test equipment). But Ueno et al. show and teach a data communication network, which is integrated with a set of processor elements (called processor system hereinafter) and a set of (transfer) buffers for use in transmitting and receiving of traffic signals – [Fig. 2; Fig. 3; Fig. 5; Fig. 8; abstract].

Notice the data communication network is integrated with a processor system and a set of (transfer) buffers, which is an integrated-circuit environment, in order to provide capabilities of in transmitting and receiving of traffic signals, which is useful in a loop-back verification of the data communication network utilizing a transmission protocol.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have applied the teachings of Ueno et al. in integrating a processor system and a set of (transfer) buffers with a data communications network to constitute an integrated-circuit environment in order to provide capabilities of transmitting and receiving of traffic signals for use in verification of functionalities of the data communications network in a loop-back check utilizing a transmission protocol.

For reference purposes, the explanations given above in response to Claim 1 are called [Response A] hereinafter.

5. As to Claim 8, reasons are included in [Response A] given above.

6. As to Claim 16, reasons are included in [Response A] given above. As indicated in Fig. 1 of Ballard et al., in addition to transmitting traffic signals embedded with one transmission protocol to the test equipment (i.e., service system), the test equipment can also receive traffic signals embedded with another transmission protocol.

Therefore, the computer program product (i.e., service system plus LCCM) comprises (1) a first generic module, which performs packet data encoding and transmission protocol embedding for transmit link (2) a first specific module for providing transmission protocol for transmit link to the first generic module (3) a second generic module, which performs packet data decoding and transmission protocol removing for receive link (4) a second specific module for providing transmission protocol for receive link to the second generic module.

7. As to Claim 2, in addition to reasons included in [Response A] given above, Ueno et al. show and teach the subject matter in Figs. 1 – 9. Notice that data transmission processor 26 is a host processor of the processor system.

8. As to Claims 3 and 11, reasons are included in [Response A] given above. Notice that (1) LCCM is a part of processor program product for use in testing a target system (2) a protocol provided by the LCCM is embedded in software traffics in packet formats, which are transmitted/received by a (software traffic) sender/receiver of a server system (test equipment).

9. As to Claims 4 and 12, a (standard) protocol is embedded in packet traffic signals transmitting/receiving between data communications network and test equipment (e.g., DTTE); therefore, it is a traffic protocol.

10. As to Claims 5 and 13, Internet network is a data communications network; therefore, the traffic protocol can be an Internet protocol.

11. Claims 6, 7, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,937,823 to Ballard et al. in view of U.S. Patent No.

Art Unit: 2825

5,592,628 to Ueno et al. in view of US Patent Application Publication No. 2003/0229827 A1 to Dun et al.

12. As to Claims 6 and 14, Ballard et al. and Ueno et al. teach all subject matter as recited in Claim 5, they do not teach that the protocol comprises a bus protocol. But Dun et al. disclose advantages of utilizing serial bus protocol for transmission traffic data between (communications) devices – [Paragraph 0005]. Dun et al. disclose that a bus protocol enable increase data transfer speeds between devices and allow protocol analyzer to monitor buses to which they connected and alert users to an abnormal bus.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have applied the teachings of Dun et al. in utilizing a bus protocol on bus interconnecting between the protocol analyzer and data communications network in order to increase data transfer speeds between these two devices and allow the protocol analyzer to monitor buses and alert users to an abnormal bus.

13. As to Claims 7 and 15, SPI4.2 protocol is a well-known industrial standard bus protocol for use in communication chips, which are building blocks of data communications network, to receiver and transfer data.

Response to Amendments and Remarks

14. Applicants' amendments and remarks filed on 02/08/2006 have been reviewed. In Examiner's Remarks in the Office Action mailed 12/19/2005, Examiner mentioned that applicants' claimed inventions have already been applied in many digital telecommunication test equipment (DTTE) for use in testing and diagnosing a digital communication system/network (e.g., earth station in a satellite communication system). Applicants do not response to Examiner's request explaining difference between their claimed inventions and the aforementioned DTTE. Responses in the aforementioned mailed Office Action are reversed. Detailed responses are given as above.

Art Unit: 2825

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Sun James Lin* whose telephone number is (571) 272 - 1899. The examiner can normally be reached on Monday-Friday 9:30AM - 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Chiang* can be reached on (571) 272 - 7483. The fax phone number for the organization where this application or proceeding is assigned is 571- 273 - 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sun James Lin
Patent Examiner
Art Unit 2825
April 3, 2006


SUN JAMES LIN
PRIMARY EXAMINER